

ABSTRACT OF THE DISCLOSURE

The present invention provides a technique for securely implementing port-based authentication on a shared media port in an intermediate node, such as a router. To that end, the invention provides enhanced port-based network access control that includes client-based control at the shared media port. Unlike previous implementations, the port
5 does not permit multiple client nodes to access a trusted subnetwork as soon as a user at any one of those nodes is authenticated by the subnetwork. Instead, port-based authentication is performed for every client node that attempts to access the trusted subnetwork through the shared media port. As such, access to the trusted subnetwork is not compromised by unauthenticated client nodes that “piggy-back” over the shared media port after
10 a user at another client node has been authenticated by the trusted subnetwork.